

SECTION 07 95 13
INTERIOR EXPANSION JOINT COVER ASSEMBLIES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Carefully review and examine all other Contract Documents for requirements therein affecting the work of this Section. Furthermore, coordinate and sequence the work of this Section with all other trades affected.

1.2 SUMMARY

- A. Furnish and install interior expansion joint cover assemblies with all pertinent accessories, as indicated on Drawings and/or as specified in this Section.

1.3 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
 - 1. Section 03 30 00 – CAST-IN-PLACE CONCRETE: for placement of joint assembly frames in cast-in-place concrete floor and wall formwork; for precast concrete wall and ceiling work requiring expansion joint cover protection.
 - 2. Section 04 20 00 – UNIT MASONRY ASSEMBLIES: for expansion joint construction in masonry wall requiring joint cover assemblies.
 - 3. Section 07 91 13 – EXTERIOR EXPANSION JOINT COVER ASSEMBLIES: for exterior expansion joint protection.
 - 4. Section 09 29 00 – GYPSUM BOARD: for expansion joints in drywall soffit, ceiling and wall substrates requiring joint cover assemblies.
 - 5. Section 09 51 00 – ACOUSTICAL CEILING: for joint construction in suspended metal ceiling grids requiring joint cover assemblies.
 - 6. Division 09 - FINISHES: for various floor, wall and ceiling finishes abutting or integrated into expansion joint cover assemblies.

1.4 SUBMITTALS

- A. Make submittals in accordance with Contract Conditions and Section 01 33 00 – SUBMITTAL PROCEDURES.
 - 1. Product data: For each type of product.
 - a. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for expansion joint cover assemblies.
 - 2. Shop drawings: For each expansion joint cover assembly.
 - a. Include plans, elevations, sections, details, splices, block-out requirement, attachments to other work, and line diagrams showing entire route of each expansion joint.
 - b. Where expansion joint cover assemblies change planes, provide isometric or clearly detailed drawing depicting how components interconnect.

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- c. Expansion Joint Cover Assembly Schedule: Prepared by or under the supervision of the supplier. Include the following information in tabular form:
 - 1). Manufacturer and model number for each expansion joint cover assembly.
 - 2). Expansion joint cover assembly location cross-referenced to Drawings.
 - 3). Nominal, minimum, and maximum joint width.
 - 4). Movement direction.
 - 5). Materials, colors, and finishes.
 - 6). Product options.
 - 7). Fire-resistance ratings
 - d. Product Test Reports: For each fire-resistance-rated expansion joint cover assembly, for tests performed by a qualified testing agency.
 - 3. Samples: For each expansion joint cover assembly and for each color and texture specified, full width by 6 inches (150 mm) long in size.
 - a. Samples for Initial Selection: For each type of exposed finish.
 - 1). Include manufacturer's color charts showing the full range of colors and finishes available for each exposed metal and elastomeric-seal material.
 - b. Samples for Verification: For each type of expansion joint cover assembly, full width by 6 inches (150 mm) long in size.
- B. High Performance Buildings Compliance Submittal: Submit the required documents in accordance with the Checklist as a separate submittal package to Construction Manager's High Performance Buildings Compliance Coordinator, including information on each product specified:
- 1. Local/Regional Materials:
 - a. Sourcing location(s): Indicate location of extraction, harvesting, and recovery of raw materials used in the products manufacturing; indicate distance between extraction, harvesting, and recovery and the project site.
 - b. Manufacturing location(s): Indicate location of manufacturing facility; include distance between manufacturing facility and the project site.
 - 2. Recycled content: Manufacturer's certification of recycled content indicating percentage by weight of both pre-consumer and post-consumer recycled content.
 - 3. VOC Content: Submit documentation showing VOC content for all materials submitted.
 - 4. Construction Waste Management.

1.5 QUALITY ASSURANCE

- A. Take field measurements before preparation of shop drawings and fabrication to ensure proper fitting of Work.
 - 1. Allow for adjustments within specified tolerances wherever taking of field measurements before fabrication might delay Work.
 - 2. Provide all necessary templates and rough-in measurements required for installation of expansion control assemblies.
- B. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for materials and execution.
 - 1. Build mockup of typical expansion joint cover assembly as shown on Drawings.

2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 WARRANTIES

- A. Prepare and submit warranties, commencing from the date of Substantial Completion, in accordance with Division 01 Section "Warranties".
 1. Provide manufacturer's product warranty against defects in manufacturing materials and workmanship for a period no less than **five (5)** years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to Architect's review for conformance with Contract Documents and the requirements specified herein, provide products from one of the following listed manufacturers:
 1. Construction Specialties, Muncy, PA.
 2. MM Systems Corporation, Tucker, GA.
 3. Balco, Metallines, Wichita, KS.
 4. Or equal.

2.2 ASSEMBLY DESCRIPTION

- A. Furnish units in longest practicable lengths to minimize field splicing.
- B. Include factory-fabricated closure materials and transition pieces, T-joints, corners, curbs, cross-connections, and other pertinent accessories as required to provide continuous expansion joint cover assemblies.

2.3 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Expansion joint cover assemblies shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- B. Fire-Resistance Ratings: Provide expansion joint cover assemblies with fire barriers identical to those of systems tested for fire resistance according to UL 2079 or ASTM E1966 by a qualified testing agency.
 1. Hose Stream Test: Wall-to-wall and wall-to-ceiling assemblies shall be subjected to hose stream testing.
- C. Expansion Joint Design Criteria:
 1. Type of Movement: Seismic.
 - a. Joint Movement: As indicated on Drawings.

2.4 FLOOR EXPANSION JOINT COVERS

- A. Elastomeric-Seal Floor Joint Cover Assembly consisting of elastomeric seal anchored to frames fixed to sides of joint gap. (for 1" - 4" nominal, horizontal expansion joints)

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1. Basis Design: Floor to Floor "GFT" and Floor to Wall "GFTW" as manufactured by Construction Specialties, Muncy, PA.
2. Extrusion: Clear anodic, Class I aluminum alloys and tempers. Frame heights shall be flush with finish flooring.
3. Primary seal: Dual Durometer 65 Shore A, 90 Shore A, ASTM D2000.
 - a. Color: As selected by Architect from manufacturer's full range.
4. Standard loading: 500 lbs.
5. Include aluminum support plate for added durability.

2.5 WALL EXPANSION JOINT COVERS

- A. Elastomeric-Seal Wall Joint Cover Assembly consisting of elastomeric seal anchored to frames fixed to sides of joint gap. (for 1" - 4" nominal, vertical expansion joints)
1. Basis Design:
 - a. GWB Wall to Wall "FWF" and Wall to Wall Corner "FWFC" as manufactured by Construction Specialties, Muncy, PA.
 - b. Concrete or Masonry Wall to Wall "FWF-M" and Wall to Wall Corner "FWFC-M" as manufactured by Construction Specialties, Muncy, PA.
 2. Extrusion: Clear anodic, Class I aluminum alloys and tempers.
 3. Primary seal: Dual Durometer 65 Shore A, 90 Shore A, ASTM D2000.
 - a. Color: As selected by Architect from manufacturer's full range.
 4. Wall applications shall align with and match flush covers used in the floor.

2.6 CEILING EXPANSION JOINT COVERS

- A. Elastomeric-Seal Ceiling Joint Cover Assembly consisting of elastomeric seal anchored to frames fixed to sides of joint gap. (for 1" - 4" nominal, horizontal expansion joints)
1. Basis Design: Ceiling to Ceiling "FCF" and Ceiling to Wall "FCFC" as manufactured by Construction Specialties, Muncy, PA.
 2. Extrusion: Clear anodic, Class I aluminum alloys and tempers. Frame heights shall be flush with finish flooring.
 3. Primary seal: Dual Durometer 65 Shore A, 90 Shore A, ASTM D2000.
 - a. Color: As selected by Architect from manufacturer's full range.
 4. Ceiling applications shall align with and match flush covers used in the wall.

2.7 MATERIALS

- A. Aluminum: ASTM B 221 (ASTM B 221M), Alloy 6063-T5 for extrusions; ASTM B 209 (ASTM B 209M), Alloy 6061-T6 for sheet and plate.
1. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.
 2. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.
- B. Elastomeric Seals: Manufacturer's standard preformed elastomeric membranes or extrusions to be installed in metal frames.
- C. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist the passage of flame and hot gases through a movement joint and to comply with performance criteria for required fire-resistance rating.
1. Fire-Resistance Rating: Not less than that indicated on Drawings.
 2. Basis of Design: "Reflex Floor and Wall Series" as manufactured by Construction Specialties, Muncy, PA.

- a. Fire barrier shall provide up to 2-hour fire endurance rating, minimize smoke passage and accommodate dynamic movement without degradation of the material.
 - b. Performance standards: UL-2079, ASTM E-1966, ASTM E-1399, ASTM E-119.
 - D. Moisture Barrier: Manufacturer's standard, flexible elastomeric material.
 - E. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107/C 1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.
- 2.8 ACCESSORIES
- A. Moisture Barriers: Manufacturer's standard continuous, waterproof membrane within joint and attached to substrate on sides of joint.
 - 1. Provide at all slab-on-grade applications.
 - B. Manufacturer's standard attachment devices. Include anchors, clips, fasteners, set screws, spacers, and other accessories compatible with material in contact, as indicated or required for complete installations.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces where expansion joint cover assemblies will be installed for installation tolerances and other conditions affecting performance of the Work.
- B. Notify Architect where discrepancies occur that will affect proper expansion joint cover assembly installation and performance.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to expansion joint cover assembly manufacturer's written instructions.
- B. Coordinate and furnish anchorages, setting drawings, and instructions for installing expansion joint cover assemblies. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of expansion joint cover assemblies.

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions for storing, handling, and installing expansion joint cover assemblies and materials unless more stringent requirements are indicated.
- B. Metal Frames: Perform cutting, drilling, and fitting required to install expansion joint cover assemblies.
 - 1. Repair or grout block out as required for continuous frame support using non-metallic, shrinkage-resistant grout.
 - 2. Install frames in continuous contact with adjacent surfaces.
 - a. Shimming is not permitted.

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3. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
 4. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation.
 5. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.
 6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches (75 mm) from each end and not more than 24 inches (600 mm) o.c.
- C. Seals: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.
1. Provide in continuous lengths for straight sections.
 2. Seal transitions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.
 3. Installation: Mechanically lock seals into frames or adhere to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.
- D. Install with hairline mitered corners where expansion joint cover assemblies change direction or abut other materials.
- E. Terminate exposed ends of expansion joint cover assemblies with field- or factory-fabricated termination devices.
- F. Fire-Resistance-Rated Assemblies: Coordinate installation of expansion joint cover assembly materials and associated work so complete assemblies comply with performance requirements.
1. Fire Barriers: Install fire barriers to provide continuous, uninterrupted fire resistance throughout length of joint, including transitions and field splices.
- G. Moisture Barrier Drainage: If indicated, provide drainage fittings and connect to drains.

3.4 PROTECTION

- A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.
- B. Protect the installation from damage by work of other Sections. Where necessary due to heavy construction traffic, remove and properly store cover plates or seals and install temporary protection over expansion joint cover assemblies. Reinstall cover plates or seals prior to Substantial Completion.

END OF SECTION
